

CHEMICAL ENGINEERING, M.E.

Learning Outcomes

- Graduates of the ME program will acquire and demonstrate expertise in the core subject areas of chemical engineering, which are chemical process analysis, thermodynamics, fluid flow analysis and mass transfer.
- Graduates of the ME program will acquire a working knowledge of various areas of chemical science and technology and in allied fields, including other engineering disciplines, business, the sciences, and/or mathematics. They will successfully complete three elective courses - these courses will be approved by their advisors and the Graduate Director.
- Graduates of the ME program will be made aware, through attendance at seminars and conferences, of advances at the frontiers of knowledge in chemical science and technology.
- Graduates of the ME program will acquire the basic skills needed for life-long learning and professional development.

Degree Requirements (30 Hours)

Core Courses (12 Hours)

| Course | Title | Credits |
|--------------------|--|---------|
| ECHE 700 | Chemical Process Analysis | 3 |
| ECHE 710 | Advanced Chemical Engineering Thermodynamics | 3 |
| ECHE 720 | Advanced Fluid Flow Analysis | 3 |
| ECHE 722 | Advanced Mass Transfer | 3 |
| Total Credit Hours | | 12 |

Six Additional Lecture Courses (18 Hours)

Two of the six additional courses (6 hours) must be chemical engineering lecture courses, and the remaining four courses (12 hours) may be from business, chemistry, engineering, or mathematics. A program of independent study (ECHE 797, three or six credit hours) may be substituted for one or two of the remaining four lecture courses. At least five of the lecture courses (15 hours) required for the Master of Engineering degree must be numbered 700 and above. Proposals for programs of independent study must be submitted and approved by the faculty of the department before the work is initiated.

Advisement

The graduate director serves as the academic advisor for M.E. students.

Comprehensive Examination

Each M.E. candidate must pass a comprehensive examination before graduation. Students should consult the graduate director for information on the format and subjects of the comprehensive examination.

Note: No foreign language is required for any graduate degree in chemical engineering. Additional requirements follow.